

03-1142  
1496.00320

CLAIMS

1. An apparatus comprising:

a plurality of disk drives each having a first region and a second region, wherein said first regions have a performance parameter faster than said second regions; and

5 a controller configured to (i) write a plurality of data items in said first regions and (ii) write a plurality of fault tolerance items for said data items in said second regions.

2. The apparatus according to claim 1, wherein said first region for each of said disk drives comprises an annular area of a storage medium proximate an outer edge of said storage media.

3. The apparatus according to claim 2, wherein said second region for each of said disk drives comprise an area of said storage medium between said first region and a rotational axis of said storage medium.

4. The apparatus according to claim 1, wherein said fault tolerances items are copies of said data items.

03-1142  
1496.00320

5. The apparatus according to claim 4, wherein said disk drives comprise a redundant array of inexpensive disks level 1.

6. The apparatus according to claim 4, wherein said disk drives comprise a redundant array of inexpensive disks level 10.

7. The apparatus according to claim 4, wherein said disk drives comprise a redundant array of inexpensive disks level 0+1.

8. The apparatus according to claim 1, wherein each of said first fault tolerance items is a parity item.

9. The apparatus according to claim 8, wherein said disk drives comprise a redundant array of inexpensive disks level 5.

03-1142  
1496.00320

10. The apparatus according to claim 8, wherein said disk drives comprise a redundant array of inexpensive disks level 6.

11. The apparatus according to claim 1, wherein said performance parameter is a bit transfer rate to a storage medium within said disk drives.

12. A method for operating a plurality of disk drives, comprising the steps of:

(A) partitioning an address range for said disk drives into a first range and a second range, where said first range has 5 a performance parameter faster than said second range;

(B) writing a first data item in said first range; and  
(C) writing a first fault tolerance item for said first data item in said second range.

13. The method according to claim 12, further comprising the steps of:

writing said first data item on a first of said disk drives; and

03-1142  
1496.00320

writing said first fault tolerance item on a second of  
said disk drives.

14. The method according to claim 13, further comprising  
the step of:

generating said first fault tolerance item by copying  
said first data item.

15. The method according to claim 13, further comprising  
the steps of:

writing a second data item in said first range on said  
second disk drive; and

5 writing a second fault tolerance item for said second  
data item in said second range on said first disk drive.

16. The method according to claim 15, further comprising  
the step of:

writing a parity item for a first of said disk drives in  
said second range on a second of said disk drives.

03-1142  
1496.00320

17. The method according to claim 12, further comprising  
the steps of:

striping said first data item prior to step (B); and  
generating said first fault tolerance item by mirroring  
5 said first data item after striping.

18. The method according to claim 12, further comprising  
the steps of:

generating said first fault tolerance item by mirroring  
said first data item; and  
5 striping said first fault tolerance item prior to  
step (C).

19. The method according to claim 12, wherein writing  
said first data item is performed asynchronously with respect to  
writing said first fault tolerance item.

03-1142  
1496.00320

20. A circuit comprising:

means for partitioning an address range for a plurality of disk drives into a first range and a second range, where said first range has a performance parameter faster than said second range;

5

means for writing a first data item in said first range;  
and

means for writing a first fault tolerance item for said first data item in said second range.